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MIPR NO: 91MM1502

TITLE: A PROSPECTIVE EVALUATION OF STRESS FRACTURES/OVERUSE INJURIES IN A POPULATION OF WEST POINT CADETS

PRINCIPAL INVESTIGATOR: Swain, James H.

CONTRACTING ORGANIZATION: Keller Army Community Hospital
USAMEDDAC
West Point, New York 10996-6000

REPORT DATE: January 15, 1992



TYPE OF REPORT: Annual Report

PREPARED FOR: U.S. ARMY MEDICAL RESEARCH AND DEVELOPMENT COMMAND
Fort Detrick, Frederick, Maryland 21702-5012

DISTRIBUTION STATEMENT: Approved for public release;
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REPORT DOCUMENTATION PAGE

Form Approved
OMB No 0704-0188

Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project 0704-0188, Washington, DC 20503.

1. AGENCY USE ONLY (Leave blank)			2. REPORT DATE 15 January 1992	3. REPORT TYPE AND DATES COVERED Annual Report (12/1/90 - 11/30/91)	
4. TITLE AND SUBTITLE A Prospective Evaluation of Stress Fractures/Overuse Injuries in a Population of West Point Cadets			5. FUNDING NUMBERS MIPR No. 91MM1502		
6. AUTHOR(S) James H. Swain			63002A 3M263002D840.ED.091 WUDA335713		
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) Keller Army Community Hospital USAMRDDAC West Point, New York 10996-6000			8. PERFORMING ORGANIZATION REPORT NUMBER		
9. SPONSORING / MONITORING AGENCY NAME(S) AND ADDRESS(ES) U.S. Army Medical Research and Development Command Fort Detrick, Frederick, Maryland 21702-5012			10. SPONSORING / MONITORING AGENCY REPORT NUMBER		
11. SUPPLEMENTARY NOTES					
12a. DISTRIBUTION / AVAILABILITY STATEMENT Approved for public release; distribution unlimited			12b. DISTRIBUTION CODE		
13. ABSTRACT (Maximum 200 words) The study group performed two evaluations during this period. 175 Cadets remain in the study. Nonparticipant are primarily due to resignation from the Academy. Body fat % for the men and women has remained the same. The women have increased weight indicating a gain in muscle mass. Lower extremity injuries have equalized in the two groups. There were more injuries in men (32%) than in women (27%) from January 91 to August 1991. Bone density and laboratory values are being automated presently.					
14. SUBJECT TERMS RAII; Stress; Bone; Scintigraphy; Volunteers			15. NUMBER OF PAGES		
			16. PRICE CODE		
17. SECURITY CLASSIFICATION OF REPORT Unclassified	18. SECURITY CLASSIFICATION OF THIS PAGE Unclassified	19. SECURITY CLASSIFICATION OF ABSTRACT Unclassified	20. LIMITATION OF ABSTRACT Unlimited		

MEDICAL RESEARCH AND DEVELOPMENT COMMAND

ANNUAL REPORT

FY 1991

1. Contract Number: 8916011 (MIRP#: 91MM1502)
 2. Principal Investigator: Colonel Jack Ryan MD, Maj Charles Scoville PT (local PI).
 3. Date of Report: 15 January 1992
 4. Report year from: 1 December 1990 through 30 November 1991
 5. Address: Col. Jack Ryan MD
MTR Division
LAIR
PSF, Ca. 94129
Tel.415-561-5816
 6. Maj. Charles Scoville
Chief, Physical Therapy
MEDDAC
West Point, NY 10996
Tel.914-938-4733
 7. Project Title: Evaluation of Stress Fractures/Overuse Injuries in a Population of West Point Cadets.
 8. Current Staff, with percent of effort of each on project:

Col Jack Ryan	Principal Investigator	15%
Maj Charles Scoville	Co-investigator	10%
Maj Dean Taylor	Co-investigator	5%
Dan Brooks	Co-investigator	15%
Marjorie Hunt	Co-investigator	15%
Dr. Copley	Co-investigator	5%
Dr. Linburg	Co-investigator	10%
James Swain	Co-investigator	5%
Cindy McClintoc	Co-investigator	5%
Maj John Uhorek	Co-investigator	5%
Mrs Ruth Travers	Co-investigator	5%
Ms Jane Reddington	secretary phy therapy	5%
	secretary CI	5%
 9. Administrative and Logistic matters: The study group successfully performed two evaluations during this period. Two investigators left active duty (Swain, Linburg). A new local PI was appointed (Scoville). The PI (Ryan) deployed to SW Asia (Oct90- Ap91) and now is assigned to LAIR. A new dual energy x-ray bone densitometer machine was delivered and installed (LUNAR DPX).
 10. Summary of expenditures:
Personnel: as noted in #8.
Personnel: TDY for evaluation team
Equipment: Lunar PX delivered May 91
Supplies: n/a
Funds: \$81,710 committed

11. Scientific Progress during year 90-91:

The study group performed two evaluations during this period. 175 cadets remain in the study. Nonparticipant are primarily due to resignation from the Academy. Body fat % for the men and women has remained the same. The women have increased weight indicating a gain in muscle mass. Lower extremity injuries have equalized in the two groups. There were more injuries in men (32%) than in women (27%) from January 91 to August 91. Bone density and laboratory values are being automated presently.

12. Plan for the next year.

Continue to analyze data. Add questions concerning activity level during last year of high school and during study period. Perform evaluation during 13-17 January 1992 and during the Fall 1992.

J. Ryan
Jack Ryan MD
Col, MC
MTR-Div
LAIR



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